

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
		FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
		APPLICANT: Arthur M. Krieg	
		GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet 1	of 11		

## U.S. PATENT DOCUMENTS

Examiner's Initials	Cite MARK	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
		6,821,957	B1	Krieg et al.	11-23-2004
		2004-0229835	A1	Krieg et al.	11-18-2004
		2004-0234512	A1	Wagner et al.	11-25-2004
		2004-0235770	A1	Davis et al.	11-25-2004
		2004-0235774	A1	Bratzler et al.	11-25-2004
		2004-0235777	A1	Wagner et al.	11-25-2004
		2004-0235778	A1	Wagner et al.	11-25-2004
		2004-0266719	A1	McCluskie et al.	12-30-2004
		2005-0004061	A1	Krieg et al.	01-06-2005
		2005-0004062	A1	Krieg et al.	01-06-2005
		2005-0009774	A1	Krieg et al.	01-13-2005
		2005-0032734	A1	Davis et al.	02-10-2005
		2005-0032736	A1	Krieg et al.	02-10-2005
		2005-0037403	A1	Krieg et al.	02-17-2005
		2005-0037985	A1	Krieg et al.	02-17-2005
		2005-0042203	A1	Davis et al.	02-24-2005
		2005-0043529	A1	Davis et al.	02-24-2005
		2005-0049215	A1	Krieg et al.	03-03-2005
		2005-0049216	A1	Krieg et al.	03-03-2005
		2005-0054601	A1	Wagner et al.	03-10-2005
		2005-0054602	A1	Krieg et al.	03-10-2005
		2005-0059619	A1	Krieg et al.	03-17-2005
		2005-0059625	A1	Krieg et al.	03-17-2005
		5,023,243		Tullis	06-11-1991
		5,457,189		Crooke et al.	10-10-1995
		5,498,410		Gleich	03-12-1996
		5,514,577		Draper et al.	05-07-1996
		5,567,604		Rando et al.	10-22-1996
		5,679,354		Morein et al.	10-21-1997
		5,681,555		Gleich	10-28-1997
		5,684,147		Agrawal et al.	11-04-1997
		6,027,732		Morein et al.	02-22-2000
		6,030,955		Stein et al.	02-29-2000
		6,184,369	B1	Rando et al.	02-06-2001
		6,210,663	B1	Ertl	04-03-2001
		6,426,334	B1	Agrawal et al.	07-30-2002
		6,498,147	B1	Nerenberg et al.	12-24-2002
		6,503,533	B1	Korba et al.	01-07-2003
		6,558,670	B1	Friede et al.	05-06-2003

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	2	of	11		

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
		6,610,661	B1	Carson et al.	08-26-2003
		6,737,066	B1	Moss	05-18-2004
		6,835,395	B1	Semple et al.	12-28-2004
		2003-0072762	A1	Van de Winkel et al.	04-17-2003
		2003-0125279	A1	Junghans et al.	07-03-2003
		2004-0009942	A1	Van Nest et al.	01-15-2004
		2004-0013688	A1	Wise et al.	01-22-2004
		2004-0038922	A1	Haensler et al.	02-26-2004
		2004-0092468	A1	Schwartz et al.	05-13-2004
		2004-0105872	A1	Klinman et al.	06-03-2004
		2004-0115219	A1	Ahn et al.	06-17-2004
		2004-0191833	A1	Fink et al.	09-30-2004
		2004-0247662	A1	Dow et al.	12-09-2004
		2005-0013812	A1	Dow et al.	01-20-2005
		2005-0019340	A1	Garcon et al.	01-27-2005
		2005-0059626	A1	Van Nest et al.	03-17-2005
		2005-0079152	A1	Bot et al.	04-14-2005

## FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
		EP	0 174 143	B1	Genentech, Inc.	11-08-1989	
		EP	0 286 224	B1	HEM Pharmaceuticals Corp.	11-25-1992	
		GB	2 216 416	A	Sandoz Ltd.	10-11-1989	
		KR	2001063153		Genexine Inc.	07-09-2001	Abstract
		WO	92/04381	A1	Scotgen Limited	03-19-1992	
		WO	94/01550	A1	Hybridon, Inc.	01-20-1994	
		WO	97/30731	A3	The Immune Response Corporation	08-28-1997	
		WO	99/33488	A2	SmithKline Beecham Biologicals S.A.	07-08-1999	
		WO	99/41368	A2	Maxygen, Inc.	08-19-1999	
		WO	99/52549	A1	SmithKline Beecham Biologicals S.A.	10-29-1999	
		WO	99/58118	A2	CPG Immunopharmaceuticals GMBH	11-18-1999	
		WO	99/61592	A1	Cheil Jedang Corporation	12-02-1999	
		WO	00/15256	A2	Pasteur Merieux Serums Et Vaccins [FR]	03-23-2000	Abstract
		WO	00/20039	A1	Regents of the University of California	04-13-2000	
		WO	00/41463	A2	SmithKline Beecham Biologicals, S.A.	07-20-2000	
		WO	00/54803	A2	Panacea Pharmaceuticals, LLC.	09-21-2000	
		WO	00/61151	A2	The Government of the United States of America	10-19-2000	

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319		ATTY. DOCKET NO.: C1039.70042US00	
				FILING DATE: July 31, 2000		CONFIRMATION NO.: 5464	
				APPLICANT: Arthur M. Krieg			
				GROUP ART UNIT: 1635		EXAMINER: Emily M. Le	
Sheet	3	of	11				

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
		WO	00/67787	A2	The Immune Response Corporation	11-16-2000	
		WO	01/22972	A2	Coley Pharmaceuticals, GmbH	04-05-2001	
		WO	01/22990	A2	Coley Pharmaceutical Group, Inc.	04-05-2001	
		WO	01/35991	A2	Dynavax Technologies Corporation	05-25-2001	
		WO	01/45750	A1	Regents of the University of California	06-28-2001	
		WO	01/55341	A2	The Regents of the University of California	08-02-2001	
		WO	01/55386	A1	Glaxo-Smithkline	08-02-2001	
		WO	01/76642	A1	Regents of the University of California	10-18-2001	
		WO	01/93902	A2	Biosynexus Incorporated	12-13-2001	
		WO	02/28428	A2	Aventis Pasteur [FR]	04-11-2002	Abstract
		WO	02/074921	A2	Cellular Genomics Inc.	09-26-2002	
		WO	03/002065	A2	Chiron Corporation	01-09-2003	
		WO	03/020889	A2	3M Innovative Properties Company	03-13-2003	
		WO	03/025119	A2	Medarex Inc.	03-27-2003	
		WO	03/030656	A2	Qiagen GMBH [DE]	04-17-2003	
		WO	03/043572	A2	3M Innovative Properties Company	05-30-2003	
		WO	03/047524	A2	Dana-Farber Cancer Institute	06-12-2003	
		WO	03/094963	A2	INEX Pharmaceuticals Corp.	11-20-2003	
		WO	03/100040	A1	Merck Patent GMBH	12-04-2003	

**OTHER ART — NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		[No Author Listed] Allergen Nomenclature, List of Allergens (as of March 12, 2004).	
		[No Author Listed] Expert panel report 2: Guidelines for the diagnosis and management of asthma – Clinical practice guidelines. National Institutes of Health Publication. 1997 Jul; No. 97-4051:iii-79.	
		AGRAWAL et al., Medicinal chemistry and therapeutic potential of CpG DNA. Trends Mol Med. 2002 Mar;8(3):114-21.	
		AGRAWAL et al., Chapter 19: Pharmacokinetics and bioavailability of antisense oligonucleotides following oral and colorectal administrations in experimental animals. p525-43.	
		ASKEW et al., CpG DNA induces maturation of dendritic cells with distinct effects on nascent and recycling MHC-II antigen-processing mechanisms. J Immunol. 2000 Dec 15;165(12):6889-95.	
		BRAZALOT-MILLAN et al., CpG DNA can induce strong Th1 humoral and cell-mediated immune responses against hepatitis B surface antigen in young mice. Proc Natl Acad Sci U S A. 1998 Dec 22;95(26):15553-8.	
		BROIDE et al., DNA-Based immunization for asthma. Int Arch Allergy Immunol. 1999 Feb- Apr;118(2-4):453-6.	
		BRUNNER et al., Enhanced dendritic cell maturation by TNF-alpha or cytidine-phosphate-guanosine DNA drives T cell activation in vitro and therapeutic anti-tumor immune responses in vivo. J Immunol. 2000 Dec 1;165(11):6278-86.	
		CELLA et al., Plasmacytoid monocytes migrate to inflamed lymph nodes and produce large amounts of type I interferon. Nat Med. 1999 Aug;5(8):919-23.	

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	4	of	11		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		CELLA et al., Plasmacytoid dendritic cells activated by influenza virus and CD40L drive a potent TH1 polarization. Nat Immunol. 2000 Oct;1(4):305-10. Abstract only.	
		CHEADLE et al., Endotoxin filtration and immune stimulation improve survival from gram-negative sepsis. Surgery. 1991 Oct;110(4):785-91; discussion 791-2. Abstract only.	
		CHEHIMI et al., Persistent decreases in blood plasmacytoid dendritic cell number and function despite effective highly active antiretroviral therapy and increased blood myeloid dendritic cells in HIV-infected individuals. J Immunol. 2002 May 1;168(9):4796-801.	
		CHEN et al., Protective immunity induced by oral immunization with a rotavirus DNA vaccine encapsulated in microparticles. J Virol. 1998 Jul;72(7):5757-61.	
		CHOI et al., The level of protection against rotavirus shedding in mice following immunization with a chimeric VP6 protein is dependent on the route and the coadministered adjuvant. Vaccine. 2002 Mar 15;20(13-14):1733-40.	
		CONG et al., The mucosal adjuvanticity of cholera toxin involves enhancement of costimulatory activity by selective up-regulation of B7.2 expression. J Immunol. 1997 Dec 1;159(11):5301-8. Abstract only.	
		COOPER et al., Safety and immunogenicity of CPG 7909 injection as an adjuvant to Fluorix influenza vaccine. Vaccine. 2004 Aug 13;22(23-24):3136-43.	
		COSSUM et al., Disposition of the 14C-labeled phosphorothioate oligonucleotide ISIS 2105 after intravenous administration to rats. J Pharmacol Exp Ther. 1993 Dec;267(3):1181-90.	
		COWSERT et al., In vitro evaluation of phosphorothioate oligonucleotides targeted to the E2 mRNA of papillomavirus: potential treatment for genital warts. Antimicrob Agents Chemother. 1993 Feb;37(2):171-7.	
		CROOKE et al., Effect of antisense oligonucleotides on cytokine release from human keratinocytes in an in vitro model of skin. Toxicol Appl Pharmacol. 1996 Sep;140(1):85-93. Abstract only.	
		DALOD et al., Interferon alpha/beta and interleukin 12 responses to viral infections: pathways regulating dendritic cell cytokine expression in vivo. J Exp Med. 2002 Feb 18;195(4):517-28.	
		DALPKE et al., CpG DNA in the prevention and treatment of infections. BioDrugs. 2002;16(6):419-31. Abstract only.	
		DAVIS et al., CpG DNA is a potent enhancer of specific immunity in mice immunized with recombinant hepatitis B surface antigen. J Immunol. 1998 Jan 15;160(2):870-6.	
		DAVIS et al., CpG DNA overcomes hyporesponsiveness to hepatitis B vaccine in orangutans. Vaccine. 2000 Mar 17;18(18):1920-4.	
		DAVIS, Use of CpG DNA for enhancing specific immune responses. Curr Top Microbiol Immunol. 2000;247:171-83.	
		DEML et al., Immunostimulatory CpG motifs trigger a T helper-1 immune response to human immunodeficiency virus type-1 (HIV-1) gp 160 envelope proteins. Clin Chem Lab Med. 1999 Mar;37(3):199-204.	
		DONAGHY et al., Loss of blood CD11c(+) myeloid and CD11c(-) plasmacytoid dendritic cells in patients with HIV-1 infection correlates with HIV-1 RNA virus load. Blood. 2001 Oct 15;98(8):2574-6.	
		DREWS et al., The experimental and clinical use of immune-modulating drugs in the prophylaxis and treatment of infections. Infection. 1985;13 Suppl 2:S241-50. Abstract only.	
		DUMAIS et al., Mucosal immunization with inactivated human immunodeficiency virus plus CpG oligodeoxynucleotides induces genital immune responses and protection against intravaginal challenge. J Infect Dis. 2002 Oct 15;186(8):1098-105. Epub 2002 Sep 30.	
		FEARON et al., The instructive role of innate immunity in the acquired immune response. Science. 1996 Apr 5;272(5258):50-3. Abstract only.	
		FERBAS et al., CD4+ blood dendritic cells are potent producers of IFN-alpha in response to in vitro HIV-1 infection. J Immunol. 1994 May 1;152(9):4649-62. Abstract only.	

<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	5	of	11		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		FUJISAWA et al., Serial changes in titers of antibody to hepatitis B surface antigen after immunization of infants born to mothers with hepatitis B e antigen. J Pediatr Gastroenterol Nutr. 1996 Oct;23(3):270-4. Abstract only.	
		FULTZ et al., Transient increases in numbers of infectious cells in an HIV-infected chimpanzee following immune stimulation. AIDS Res Hum Retroviruses. 1992 Feb;8(2):313-7. Abstract only.	
		GALLICHAN et al., Specific secretory immune responses in the female genital tract following intranasal immunization with a recombinant adenovirus expressing glycoprotein B of herpes simplex virus. Vaccine. 1995 Nov;13(16):1589-95.	
		GALLICHAN et al., Intranasal immunization with CpG oligodeoxynucleotides as an adjuvant dramatically increases IgA and protection against herpes simplex virus-2 in the genital tract. J Immunol. 2001 Mar 1;166(5):3451-7.	
		GAO et al., Bacterial DNA and lipopolysaccharide induce synergistic production of TNF-alpha through a post-transcriptional mechanism. J Immunol. 2001 Jun 1;166(11):6855-60.	
		GASTON et al., CpG methylation has differential effects on the binding of YY1 and ETS proteins to the bi-directional promoter of the Surf-1 and Surf-2 genes. Nucleic Acids Res. 1995 Mar 25;23(6):901-9.	
		GOUTTEFANGEAS et al., Problem solving for tumor immunotherapy. Nat Biotechnol. 2000 May;18(5):491-2.	
		GRAMZINSKI et al., Interleukin-12- and gamma interferon-dependent protection against malaria conferred by CpG oligodeoxynucleotide in mice. Infect Immun. 2001 Mar;69(3):1643-9.	
		GRAMZINSKI et al., Immune response to a hepatitis B DNA vaccine in Aotus monkeys: a comparison of vaccine formulation, route, and method of administration. Mol Med. 1998 Feb;4(2):109-18. Abstract only.	
		GREGORIADIS et al., Liposomes for drugs and vaccines. Trends Biotechnol. 1985;3:235. Abstract only.	
		GURSEL et al., Differential and competitive activation of human immune cells by distinct classes of CpG oligodeoxynucleotide. J Leukoc Biol. 2002 May;71(5):813-20. Abstract only.	
		HALPERIN et al., A phase I study of the safety and immunogenicity of recombinant hepatitis B surface antigen co-administered with an immunostimulatory phosphorothioate oligonucleotide adjuvant. Vaccine. 2003 Jun 2;21(19-20):2461-7. Abstract only.	
		HARTMANN et al., CpG DNA and LPS induce distinct patterns of activation in human monocytes. Gene Ther. 1999 May;6(5):893-903.	
		HARTMANN et al., Mechanism and function of a newly identified CpG DNA motif in human primary B cells. J Immunol. 2000 Jan 15;164(2):944-53.	
		HARTMANN et al., Delineation of a CpG phosphorothioate oligodeoxynucleotide for activating primate immune responses in vitro and in vivo. J Immunol. 2000 Feb 1;164(3):1617-24.	
		HARTMANN et al., CpG DNA: a potent signal for growth, activation, and maturation of human dendritic cells. Proc Natl Acad Sci U S A. 1999 Aug 3;96(16):9305-10.	
		HASLETT et al., Strong human immunodeficiency virus (HIV)-specific CD4+ T cell responses in a cohort of chronically infected patients are associated with interruptions in anti-HIV chemotherapy. J Infect Dis. 2000 Apr;181(4):1264-72. Epub 2000 Apr 05.	
		HAVLIR et al., Maintenance antiretroviral therapies in HIV infected patients with undetectable plasma HIV RNA after triple-drug therapy. AIDS Clinical Trials Group Study 343 Team. N Engl J Med. 1998 Oct 29;339(18):1261-8.	
		HEEG et al., CpG DNA as a Th1 trigger. Int Arch Allergy Immunol. 2000 Feb;121(2):87-97.	
		HINKULA et al., Recognition of prominent viral epitopes induced by immunization with human immunodeficiency virus type 1 regulatory genes. J Virol. 1997 Jul;71(7):5528-39.	
		HO, Toward HIV eradication or remission: the tasks ahead. Science. 1998 Jun 19;280(5371):1866-7.	
		HOPKIN et al., BioMedNet, Issue 57, 6/25/1999.	

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	6	of	11		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		HORNER et al., Mucosal adjuvanticity of immunostimulatory DNA sequences. Springer Semin Immunopathol. 2000;22(1-2):133-46.	
		HUANG et al., Induction and regulation of Th1-inducing cytokines by bacterial DNA, lipopolysaccharide, and heat-inactivated bacteria. Infect Immun. 1999 Dec;67(12):6257-63.	
		HUNG et al., Improving vaccine potency through intercellular spreading and enhanced MHC class I presentation of antigen. J Immunol. 2001 May 1;166(9):5733-40.	
		HUNTER et al., Biodegradable microspheres containing group B Streptococcus vaccine: immune response in mice. Am J Obstet Gynecol. 2001 Nov;185(5):1174-9.	
		IHO et al., Oligodeoxynucleotides containing palindrome sequences with internal 5'-CpG-3' act directly on human NK and activated T cells to induce IFN-gamma production in vitro. J Immunol. 1999 Oct 1;163(7):3642-52.	
		IMAMI et al., Assessment of type 1 and type 2 cytokines in HIV type 1-infected individuals: impact of highly active antiretroviral therapy. AIDS Res Hum Retroviruses. 1999 Nov 20;15(17):1499-508.	
		IOANNOU et al., The immunogenicity and protective efficacy of bovine herpesvirus 1 glycoprotein D plus Emulsigen are increased by formulation with CpG oligodeoxynucleotides. J Virol. 2002 Sep;76(18):9002-10.	
		JACKSON et al., Internal initiation of translation in eukaryotes: the picornavirus paradigm and beyond. RNA. 1995 Dec;1(10):985-1000.	
		JAKOB et al., Activation of cutaneous dendritic cells by CpG-containing oligodeoxynucleotides: a role for dendritic cells in the augmentation of Th1 responses by immunostimulatory DNA. J Immunol. 1998 Sep 15;161(6):3042-9.	
		JAKOB et al., Bacterial DNA and CpG-containing oligodeoxynucleotides activate cutaneous dendritic cells and induce IL-12 production: implications for the augmentation of Th1 responses. Int Arch Allergy Immunol. 1999 Feb-Apr;118(2-4):457-61.	
		JARROSSAY et al., Specialization and complementarity in microbial molecule recognition by human myeloid and plasmacytoid dendritic cells. Eur J Immunol. 2001 Nov;31(11):3388-93. Abstract only.	
		JIANG et al., Enhancing immunogenicity by CpG DNA. Curr Opin Mol Ther. 2003 Apr;5(2):180-5. Abstract only.	
		JURK et al., Human TLR7 or TLR8 independently confer responsiveness to the antiviral compound R-848. Nat Immunol. 2002 Jun;3(6):499.	
		KIEFT et al., The hepatitis C virus internal ribosome entry site adopts an ion-dependent tertiary fold. J Mol Biol. 1999 Sep 24;292(3):513-29. Abstract only.	
		KLINCK et al., A potential RNA drug target in the hepatitis C virus internal ribosomal entry site. RNA. 2000 Oct;6(10):1423-31.	
		KLINMAN et al., Immunotherapeutic uses of CpG oligodeoxynucleotides. Nat Rev Immunol. 2004 Apr;4(4):249-58.	
		KLINMAN et al., CpG oligonucleotides improve the protective immune response induced by the anthrax vaccination of rhesus macaques. Vaccine. 2004 Jul 29;22(21-22):2881-6.	
		KOVARIK et al., CpG oligodeoxynucleotides can circumvent the Th2 polarization of neonatal responses to vaccines but may fail to fully redirect Th2 responses established by neonatal priming. J Immunol. 1999 Feb 1;162(3):1611-7.	
		KRANZER et al., CpG-oligodeoxynucleotides enhance T-cell receptor-triggered interferon-gamma production and up-regulation of CD69 via induction of antigen-presenting cell-derived interferon type I and interleukin-12. Immunology. 2000 Feb;99(2):170-8.	
		KRIEG et al., Immune effects and therapeutic applications of CpG motifs in bacterial DNA. Immunopharmacology. 2000 Jul 25;48(3):303-5.	
		KRIEG et al., Causing a commotion in the blood: immunotherapy progresses from bacteria to bacterial DNA. Immunol Today. 2000 Oct;21(10):521-6.	

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319		ATTY. DOCKET NO.: C1039.70042US00	
				FILING DATE: July 31, 2000		CONFIRMATION NO.: 5464	
				APPLICANT: Arthur M. Krieg			
				GROUP ART UNIT: 1635		EXAMINER: Emily M. Le	
Sheet	7	of	11				

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		KRIEG et al., Chapter 8: Immune Stimulation by Oligonucleotides. in Antisense Research and Application. Crooke, editor. 1998; 243-62.	
		KRIEG et al., Enhancing vaccines with immune stimulatory CpG DNA. Curr Opin Mol Ther. 2001 Feb;3(1):15-24.	
		KRIEG et al., Ernst Schering Research Found Workshop, (30): 105-18, 2001.	
		KRIEG, Immune effects and mechanisms of action of CpG motifs. Vaccine. 2000 Nov 8;19(6):618-22.	
		KRIEG et al., Chapter 17: Immune stimulation by oligonucleotides. in Antisense Drug Tech. 2001;1394:471-515.	
		KRIEG et al., Mechanisms and applications of immune stimulatory CpG oligodeoxynucleotides. Biochim Biophys Acta. 1999 Dec 10;1489(1):107-16.	
		KRIEG et al., The CpG motif: Implications for clinical immunology. BioDrugs. 1998 Nov 1;10(5):341-6.	
		KRIEG, The role of CpG motifs in innate immunity. Curr Opin Immunol. 2000 Feb;12(1):35-43.	
		KRIEG et al., Mechanism of action of CpG DNA. Curr Top Microbiol Immunol. 2000;247:1-21.	
		KRIEG et al., Mechanisms and therapeutic applications of immune stimulatory CpG DNA. Pharmacol Ther. 1999 Nov;84(2):113-20.	
		KRIEG et al., Sequence motifs in adenoviral DNA block immune activation by stimulatory CpG motifs. Proc Natl Acad Sci U S A. 1998 Oct 13;95(21):12631-6.	
		KRIEG, Signal transduction induced by immunostimulatory CpG DNA. Springer Semin Immunopathol. 2000;22(1-2):97-105.	
		KRIEG, Lymphocyte activation by CpG dinucleotide motifs in prokaryotic DNA. Trends Microbiol. 1996 Feb;4(2):73-6.	
		KRINGEL et al., CpG-oligodeoxynucleotides enhance porcine immunity to Toxoplasma gondii. Vet Parasitol. 2004 Aug 13;123(1-2):55-66.	
		KRUG et al., Identification of CpG oligonucleotide sequences with high induction of IFN-alpha/beta in plasmacytoid dendritic cells. Eur J Immunol. 2001 Jul;31(7):2154-63.	
		KRUG et al., Toll-like receptor expression reveals CpG DNA as a unique microbial stimulus for plasmacytoid dendritic cells which synergizes with CD40 ligand to induce high amounts of IL-12. Eur J Immunol. 2001 Oct;31(10):3026-37.	
		KUCHAN et al., Nucleotides in infant nutrition: effects on immune function. Pediatr Adolesc Med. 1998;8:80-94.	
		KUHOBER et al., DNA immunization induces antibody and cytotoxic T cell responses to hepatitis B core antigen in H-2b mice. J Immunol. 1996 May 15;156(10):3687-95. Abstract only.	
		KULKARNI et al., Effect of dietary nucleotides on response to bacterial infections. JPEN J Parenter Enteral Nutr. 1986 Mar-Apr;10(2):169-71. Abstract only.	
		LEDERMAN et al., Polydeoxyguanine motifs in a 12-mer phosphorothioate oligodeoxynucleotide augment binding to the v3 loop of HIV-1 gp120 and potency of HIV-1 inhibition independency of G-tetrad formation. Antisense Nucleic Acid Drug Dev. 1996 Winter;6(4):281-9.	
		LIU et al., Recombinant interleukin-6 protects mice against experimental bacterial infection. Infect Immun. 1992 Oct;60(10):4402-6.	
		LUTYNSKI et al., [The level of anti-HBs in blood serum of persons selected from a group of Krakow inhabitants] Folia Med Cracov. 1997;38(3-4):63-8. Polish. Abstract only.	Yes - Abstract
		MA et al., DNA-based vaccination against hepatitis C virus (HCV): effect of expressing different forms of HCV E2 protein and use of CpG-optimized vectors in mice. Vaccine. 2002 Sep 10;20(27-28):3263-71.	
		MAGNUSSON et al., Importance of CpG dinucleotides in activation of natural IFN-alpha-producing cells by a lupus-related oligodeoxynucleotide. Scand J Immunol. 2001 Dec;54(6):543-50.	

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	8	of	11		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		MALANCHERE-BRES et al., CpG oligodeoxynucleotides with hepatitis B surface antigen (HBsAg) for vaccination in HBsAg-transgenic mice. J Virol. 2001 Jul;75(14):6482-91.	
		MANCILLA-RAMIREZ et al., [Phosphatidylcholine induces an increase in the production of interleukin-6 and improves survival of rats with neonatal sepsis caused by Klebsiella pneumoniae] Gac Med Mex. 1995 Jan-Feb;131(1):14-22. Spanish. Abstract only.	Yes - Abstract
		MARTINEZ-MAZA et al., Interleukin 6 and cancer treatment. In Vivo. 1991 Nov-Dec;5(6):583-8. Abstract only.	
		MATSUKURA et al., Regulation of viral expression of human immunodeficiency virus in vitro by an antisense phosphorothioate oligodeoxynucleotide against rev (art/trs) in chronically infected cells. Proc Natl Acad Sci U S A. 1989 Jun;86(11):4244-8.	
		MCCLUSKIE et al., CpG DNA is a potent enhancer of systemic and mucosal immune responses against hepatitis B surface antigen with intranasal administration to mice. J Immunol. 1998 Nov 1;161(9):4463-6.	
		MCCLUSKIE et al., CpG DNA as mucosal adjuvant. Vaccine, 18: 231-237, 2000.	
		MCCLUSKIE et al., Oral, intrarectal and intranasal immunizations using CpG and non-CpG oligodeoxynucleotides as adjuvants. Vaccine. 2000 Oct 15;19(4-5):413-22.	
		MCCLUSKIE et al., Immunization against hepatitis B virus by mucosal administration of antigen-antibody complexes. Viral Immunol. 1998;11(4):245-52.	
		MCCLUSKIE et al., CpG DNA is an effective oral adjuvant to protein antigens in mice. Vaccine. 2000 Nov 22;19(7-8):950-7.	
		MCCLUSKIE et al., The potential of oligodeoxynucleotides as mucosal and parenteral adjuvants. Vaccine. 2001 Mar 21;19(17-19):2657-60.	
		MCCLUSKIE et al., The use of CpG DNA as a mucosal vaccine adjuvant. Curr Opin Investig Drugs. 2001 Jan;2(1):35-9.	
		MCCLUSKIE et al., Parenteral and mucosal prime-boost immunization strategies in mice with hepatitis B surface antigen and CpG DNA. FEMS Immunol Med Microbiol. 2002 Feb 18;32(3):179-85.	
		MCCLUSKIE et al., The role of CpG in DNA vaccines. Springer Semin Immunopathol. 2000;22(1-2):125-32.	
		MCCLUSKIE et al., Novel adjuvant systems. Curr Drug Targets Infect Disord. 2001 Nov;1(3):263-71.	
		MOISAN et al., Clearance of infection with Mycobacterium bovis BCG in mice is enhanced by treatment with S28463 (R-848), and its efficiency depends on expression of wild-type Nramp1 (resistance allele). Antimicrob Agents Chemother. 2001 Nov;45(11):3059-64.	
		MOLDOVEANU et al., CpG DNA, a novel immune enhancer for systemic and mucosal immunization with influenza virus. Vaccine. 1998 Jul;16(11-12):1216-24.	
		MOSS et al., In vitro immune function after vaccination with an inactivated, gp120-depleted HIV-1 antigen with immunostimulatory oligodeoxynucleotides. Vaccine. 2000 Jan 6;18(11-12):1081-7.	
		MUDD et al., The effect of nonspecific immune stimulation on the recurrence rate of herpetic keratitis in rabbits. Invest Ophthalmol. 1975 Jun;14(6):469-71. Abstract only.	
		O'HAGAN et al., Recent developments in adjuvants for vaccines against infectious diseases. Biomol Eng. 2001 Oct 15;18(3):69-85. Abstract only.	
		O'HAGAN et al., Recent developments in vaccine delivery systems. Curr Drug Targets Infect Disord. 2001 Nov;1(3):273-86. Abstract only.	
		ONYEBUJOH et al., Immunotherapy with Mycobacterium vaccae as an addition to chemotherapy for the treatment of pulmonary tuberculosis under difficult conditions in Africa. Respir Med. 1995 Mar;89(3):199-207. Abstract only.	



<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319		ATTY. DOCKET NO.: C1039.70042US00	
				FILING DATE: July 31, 2000		CONFIRMATION NO.: 5464	
				APPLICANT: Arthur M. Krieg			
				GROUP ART UNIT: 1635		EXAMINER: Emily M. Le	
Sheet	9	of	11				

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
		PAL et al., Immunization with the Chlamydia trachomatis mouse pneumonitis major outer membrane protein by use of CpG oligodeoxynucleotides as an adjuvant induces a protective immune response against an intranasal chlamydial challenge. Infect Immun. 2002 Sep;70(9):4812-7.		
		PASHENKOV et al., Recruitment of dendritic cells to the cerebrospinal fluid in bacterial neuroinfections. J Neuroimmunol. 2002 Jan;122(1-2):106-16. Abstract only.		
		PAYETTE et al., History of vaccines and positioning of current trends. Curr Drug Targets Infect Disord. 2001 Nov;1(3):241-7.		
		RANKIN et al., CpG motif identification for veterinary and laboratory species demonstrates that sequence recognition is highly conserved. Antisense Nucleic Acid Drug Dev. 2001 Oct;11(5):333-40.		
		RAY et al., Experimental Biology 2001. Orlando, Florida, USA. March 31-April 4, 2001. Abstracts, part II. FASEB J. 2001 Mar 8;15(5):A1007.		
		REVAZ et al., The importance of mucosal immunity in defense against epithelial cancers. Curr Opin Immunol. 2005 Apr;17(2):175-9.		
		ROTHENFUSSER et al., Recent advances in immunostimulatory CpG oligonucleotides. Curr Opin Mol Ther. 2003 Apr;5(2):98-106.		
		SAJIC et al., Parameters of CpG oligodeoxynucleotide-induced protection against intravaginal HSV-2 challenge. J Med Virol. 2003 Dec;71(4):561-8.		
		SATOH et al., Morphological and immunohistochemical characteristics of the heterogeneous prostate-like glands (paraurethral gland) seen in female Brown-Norway rats. Toxicol Pathol. 2001 Mar-Apr;29(2):237-41. Abstract only.		
		SCHWARTZ et al., Bacterial DNA or oligonucleotides containing unmethylated CpG motifs can minimize lipopolysaccharide-induced inflammation in the lower respiratory tract through an IL-12-dependent pathway. J Immunol. 1999 Jul 1;163(1):224-31.		
		SESTER et al., Phosphorothioate backbone modification modulates macrophage activation by CpG DNA. J Immunol. 2000 Oct 15;165(8):4165-73.		
		SINGH et al., Recent advances in veterinary vaccine adjuvants. Int J Parasitol. 2003 May;33(5-6):469-78. Abstract only.		
		SINGH et al., Recent advances in vaccine adjuvants. Pharm Res. 2002 Jun;19(6):715-28. Abstract only.		
		SJOLANDER et al., Iscoms containing purified Quillaja saponins upregulate both Th1-like and Th2-like immune responses. Cell Immunol. 1997 Apr 10;177(1):69-76.		
		SOILLEUX et al., Constitutive and induced expression of DC-SIGN on dendritic cell and macrophage subpopulations in situ and in vitro. J Leukoc Biol. 2002 Mar;71(3):445-57. Abstract only.		
		SPARWASSER et al., Bacterial DNA causes septic shock. Nature. 1997 Mar 27;386(6623):336-7.		
		SPARWASSER et al., Bacterial DNA and immunostimulatory CpG oligonucleotides trigger maturation and activation of murine dendritic cells. Eur J Immunol. 1998 Jun;28(6):2045-54.		
		SPENCER et al., Nonspecific protection of mice against influenza virus infection by local or systemic immunization with Bacille Calmette-Guerin. J Infect Dis. 1977 Aug;136(2):171-5. Abstract only.		
		SUN et al. Type I interferon-mediated stimulation of T cells by CpG DNA. J Exp Med. 1998 Dec 21;188(12):2335-42.		
		SUN et al. Multiple effects of immunostimulatory DNA on T cells and the role of type I interferons. Springer Semin Immunopathol. 2000;22(1-2):77-84.		
		SUR et al., Long term prevention of allergic lung inflammation in a mouse model of asthma by CpG oligodeoxynucleotides. J Immunol. 1999 May 15;162(10):6284-93.		
		THREADGILL et al., Mitogenic synthetic polynucleotides suppress the antibody response to a bacterial polysaccharide. Vaccine. 1998 Jan;16(1):76-82.		

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	10	of	11		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		TORTORA et al., Oral antisense that targets protein kinase A cooperates with taxol and inhibits tumor growth, angiogenesis, and growth factor production. Clin Cancer Res. 2000 Jun;6(6):2506-12.	
		UHLMANN et al., Recent advances in the development of immunostimulatory oligonucleotides. Curr Opin Drug Discov Devel. 2003 Mar;6(2):204-17.	
		VANDERLUGT et al., Epitope spreading in immune-mediated diseases: implications for immunotherapy. Nat Rev Immunol. 2002 Feb;2(2):85-95.	
		VERTHELYI et al., Immunoregulatory activity of CpG oligonucleotides in humans and nonhuman primates. Clin Immunol. 2003 Oct;109(1):64-71.	
		VERTHELYI et al., CpG oligodeoxynucleotides improve the response to hepatitis B immunization in healthy and SIV-infected rhesus macaques. AIDS. 2004 Apr 30;18(7):1003-8. Abstract only.	
		VERTHELYI et al., Human peripheral blood cells differentially recognize and respond to two distinct CPG motifs. J Immunol. 2001 Feb 15;166(4):2372-7.	
		VOLLMER et al., Highly immunostimulatory CpG-free oligodeoxynucleotides for activation of human leukocytes. Antisense Nucleic Acid Drug Dev. 2002 Jun;12(3):165-75.	
		VOLLMER et al., Modulation of CpG oligodeoxynucleotide-mediated immune stimulation by locked nucleic acid (LNA). Oligonucleotides. 2004 Spring;14(1):23-31.	
		VOLLMER et al., Immunopharmacology of CpG oligodeoxynucleotides and ribavirin. Antimicrob Agents Chemother. 2004 Jun;48(6):2314-7.	
		WAGNER, Interactions between bacterial CpG-DNA and TLR9 bridge innate and adaptive immunity. Curr Opin Microbiol. 2002 Feb;5(1):62-9.	
		WARREN et al., APC stimulated by CpG oligodeoxynucleotide enhance activation of MHC class I-restricted T cells. J Immunol. 2000 Dec 1;165(11):6244-51.	
		WEERATNA et al., Reduction of antigen expression from DNA vaccines by coadministered oligodeoxynucleotides. Antisense Nucleic Acid Drug Dev. 1998 Aug;8(4):351-6.	
		WEERATNA et al., CPG ODN allows lower dose of antigen against hepatitis B surface antigen in BALB/c mice. Immunol Cell Biol. 2003 Feb;81(1):59-62.	
		WEERATNA et al., CpG ODN can re-direct the Th bias of established Th2 immune responses in adult and young mice. FEMS Immunol Med Microbiol. 2001 Dec;32(1):65-71.	
		WEERATNA et al., CpG DNA induces stronger immune responses with less toxicity than other adjuvants. Vaccine. 2000 Mar 6;18(17):1755-62.	
		WEERATNA et al., Priming of immune responses to hepatitis B surface antigen in young mice immunized in the presence of maternally derived antibodies. FEMS Immunol Med Microbiol. 2001 Apr;30(3):241-7.	
		WEERATNA et al., Optimization strategies for DNA vaccines. Intervirology. 2000;43(4-6):218-26.	
		WEINER et al., The immunobiology and clinical potential of immunostimulatory CpG oligodeoxynucleotides. J Leukoc Biol. 2000 Oct;68(4):455-63.	
		WEINER et al., Immunostimulatory oligodeoxynucleotides containing the CpG motif are effective as immune adjuvants in tumor antigen immunization. Proc Natl Acad Sci U S A. 1997 Sep 30;94(20):10833-7.	
		WYATT et al. Combinatorially selected guanosine-quartet structure is a potent inhibitor of human immunodeficiency virus envelope-mediated cell fusion. Proc Natl Acad Sci U S A. 1994 Feb 15;91(4):1356-60.	
		YI et al. Rapid induction of mitogen-activated protein kinases by immune stimulatory CpG DNA. J Immunol. 1998 Nov 1;161(9):4493-7.	
		YI et al. CpG oligodeoxyribonucleotides rescue mature spleen B cells from spontaneous apoptosis and promote cell cycle entry. J Immunol. 1998 Jun 15;160(12):5898-906.	
		ZHAO et al., Site of chemical modifications in CpG containing phosphorothioate oligodeoxynucleotide modulates its immunostimulatory activity. Bioorg Med Chem Lett. 1999 Dec 20;9(24):3453-8. Abstract only.	

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/630,319	ATTY. DOCKET NO.: C1039.70042US00
				FILING DATE: July 31, 2000	CONFIRMATION NO.: 5464
				APPLICANT: Arthur M. Krieg	
				GROUP ART UNIT: 1635	EXAMINER: Emily M. Le
Sheet	11	of	11		

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
		ZHENG et al., DNA containing CpG motifs induces angiogenesis. Proc Natl Acad Sci U S A. 2002 Jun 25;99(13):8944-9. Epub 2002 Jun 11.		
		ZOU et al., Reciprocal regulation of plasmacytoid dendritic cells and monocytes during viral infection. Eur J Immunol. 2001 Dec;31(12):3833-9. Abstract only.		
		Patent Interference No. 105,171. Iowa Miscellaneous Motion 11 (to suppress exhibits 1046, 1047, 1048, and 1049 and testimony relating thereto). (Electronically filed, unsigned). October 14, 2004.		
		Patent Interference No. 105,171. Regents of the University of California Opposition 11 (to Iowa Contingent Motion 11 to suppress). October 15, 2004.		
		Patent Interference No. 105,171. Iowa Reply 11 (in support of Iowa Miscellaneous Motion to suppress). (Electronically filed, unsigned). October 18, 2004.		
		Amended Claims for Application Number 09/265,191, filed March 10, 1999.		
		Patent Interference No. 105,171. Decision on Motion under 37 CFR §41.125. March 10, 2005.		
		Patent Interference No. 105,171. Judgment and Order. March 10, 2005.		

EXAMINER: /Emily Le/	DATE CONSIDERED: 03/15/2008
-------------------------	--------------------------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_, filed \_\_, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an eIDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]